

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	Brad R. Larson	Examiner:	Carramah Quiett
Serial No.:	10/772,165	Group Art Unit:	2622
Filed:	February 4, 2004	Docket No.:	200314257-1
Title:	System and Method of Measuring Application Resource Usage		

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**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is filed in response to the Final Office Action mailed October 17, 2008 and Notice of Appeal mailed January 21, 2009.

**AUTHORIZATION TO DEBIT ACCOUNT**

It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Hewlett-Packard Development Company's deposit account no. 08-2025.

**I. REAL PARTY IN INTEREST**

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

## **II. RELATED APPEALS AND INTERFERENCES**

There are no known related appeals or interferences known to Appellant, Appellant's legal representative, or assignee that will directly affect or be directly affected by or have a bearing on the Appeal Board's decision in the pending appeal.

### **III. STATUS OF CLAIMS**

Claims 1 – 21 are pending in the application and stand finally rejected. The rejection of claims 1 – 21 is appealed.

#### **IV. STATUS OF AMENDMENTS**

No amendments were made after receipt of the Final Office Action. All amendments have been entered.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

The following provides a concise explanation of the subject matter defined in each of the claims involved in the appeal, referring to the specification by page and line number and to the drawings by reference characters, as required by 37 C.F.R.

§ 41.37(c)(1)(v). Each element of the claims is identified by a corresponding reference to the specification and drawings where applicable. Note that the citation to passages in the specification and drawings for each claim element does not imply that the limitations from the specification and drawings should be read into the corresponding claim element or that these are the sole sources in the specification supporting the claim features.

### **Claim 1**

A digital camera system (Figs. 1a and 1b show a digital camera 10: p. 4, lines 12-13) comprising:

- a lens (Fig. 1b, #41: p. 4, line 24);

- an image sensor for sensing an image viewed by the lens (Fig. 1b, #11: p. 4, line 28);

- a display for displaying the image sensed by the image sensor (Fig. 1a, #32: p. 4, line 21);

- a storage device for storing the image sensed by the image sensor (Fig. 1b, #14: p. 4, line 32);

- processing circuitry coupled to the display, lens, image sensor, and storage device (Fig. 1b, #12: p. 4, line 31-32); and

- a processing algorithm that runs on the processing circuitry that (Fig. 1b, #13: p. 4, line 35):

- provides a user interface for selecting if a composite photograph is to be taken and for identifying a location of a first photograph to be taken (Fig. 2 illustrates an exemplary user interface that is displayed on the display 32 for use in producing panoramas and composite photographs: p. 5, lines 3-4. The user may indicate that the result should be n photographs wide and m photographs tall, such as by entering the width and height on the display 32, using pull-down menus 53, 54: p. 5, lines 7-9.);

- after the first photograph has been taken, overlays indicia on the display

indicating an overlapping area within a second photograph that is to be taken (The algorithm 13 running on the camera 10 may overlay indicia 55, such as a grid 55, for example, indicating the location of the first photograph to be taken relative to the  $m \times n$  final image: p. 5, lines 13-16. The algorithm 13 overlays marks 56, illustrated using dashed lines in Fig. 3a, on the displayed image where the ideal overlap would be for the next photographic image 62, i.e., to the right, shown in Fig. 3b: p. 5, lines 19-21.); and

uses video object tracking to track the overlaid indicia that indicate the overlapping area within the second photograph as the overlaid indicia moves over the image displayed on the display as the camera is moved to a position to take the second photograph, which overlaid indicia is used to align and place the second photograph relative to the first photograph (Using video object tracking technology, for example, on the low-resolution displayed image 56, the initial marks are moved with the image as the camera 10 rotates or moves in order to keep them locked in the same place within the image as the camera 10 is panned, scanned or moved: p. 5, lines 21-24. The user can then see when he or she has properly aligned the subsequent photographic image with the previous photographic image, because the transparent or translucent image 56 and the live image closely line up: p. 8, lines 5-8.).

#### Claim 11

A method for use with a digital camera having a lens, an image sensor for sensing an image viewed by the lens, a display for displaying the image sensed by the image sensor, a storage device for storing the image sensed by the image sensor, and processing circuitry coupled to the display, lens, image sensor, and storage device, the method comprising the steps of (Figure 6 shows a flow diagram of a method used with a digital camera 10 having a lens 41, an image sensor 11 for sensing an image viewed by the lens 41, a display 32 for displaying the image sensed by the image sensor 11, a storage device 14, 15 for storing the image sensed by the image sensor 11, and processing circuitry 12 coupled to the display 32, lens 41, image sensor 11, and storage device 14, 15: p. 9, lines 5-10):

providing a user interface for selecting if a composite photograph is to be taken and for identifying a location of a first photograph to be taken (Fig. 6, #17: A user

interface is displayed 71 on the display 32 for selecting if a panorama or composite photograph is to be taken and for identifying a location of a first photograph to be taken: p. 9, lines 11-13.);

after the first photograph has been taken, overlaying indicia on the display indicating an overlapping area within a second photograph that is to be taken (Figure 6, #72: After the first photograph has been taken, indicia is overlaid 72 on the display 32 indicating an overlapping area within a second photograph that is to be taken: p. 9, lines 13-15.); and

using video object tracking to track the overlaid indicia that indicate the overlapping area within the second photograph as the overlaid indicia moves over the image displayed on the display as the camera is moved to a position to take the second photograph, which overlaid indicia is used to align and place the second photograph relative to the first photograph (Figure 6, #73: The overlaid indicia is moved 73 along with the image displayed on the display 32 as the camera is moved to a position to take the second photograph. The overlaid indicia is used to align and place the second photograph relative to the first photograph: p. 9, lines 15-18. Using video object tracking technology, for example, on the low-resolution displayed image 56, the initial marks are moved with the image as the camera 10 rotates or moves in order to keep them locked in the same place within the image as the camera 10 is panned, scanned or moved: p. 5, lines 21-24.).

#### Claim 19

A method for use with a digital camera having a lens, an image sensor for sensing an image viewed by the lens, a display for displaying the image sensed by the image sensor, a storage device for storing the image sensed by the image sensor, a user interface, and processing circuitry coupled to the display, lens, image sensor, user interface and storage device, the method comprising the steps of (Figure 6 shows a flow diagram of a method used with a digital camera 10 having a lens 41, an image sensor 11 for sensing an image viewed by the lens 41, a display 32 for displaying the image sensed by the image sensor 11, a storage device 14, 15 for storing the image sensed by the image



sensor 11, and processing circuitry 12 coupled to the display 32, lens 41, image sensor 11, and storage device 14, 15: p. 9, lines 5-10):

(1) taking a photograph (User takes a first photograph: p. 5, lines 18-19.);

(2) displaying the photograph on the display (Image displayed shown in Fig. 3a: p. 5, lines 18-20.);

(3) using a user interface to select that a composite photograph is to be taken (Fig. 2 illustrates an exemplary user interface that is displayed on the display 32 for use in producing panoramas and composite photographs: p. 5, lines 3-4. The user may indicate that the result should be n photographs wide and m photographs tall, such as by entering the width and height on the display 32, using pull-down menus 53, 54: p. 5, lines 7-9.);

(4) using the user interface to indicate in which direction a subsequent photograph is to be taken (After the first photograph has been taken, indicia is overlaid 72 on the display 32 indicating an overlapping area within a second photograph that is to be taken: p. 9, lines 13-15.);

(5) making the displayed image transparent (The user can then see when he or she has properly aligned the subsequent photographic image with the previous photographic image, because the transparent or translucent image 56 and the live image closely line up: p. 8, lines 5-8.);

(6) using video object tracking to track the transparent displayed image as the transparent displayed image moves across the display in a direction that is opposite to the direction of the subsequent photograph until the transparent displayed image overlaps a predetermined portion of the subsequent photograph that is to be taken, which overlap is used to align and place the subsequent photograph relative to the photograph (Using video object tracking technology, for example, on the low-resolution displayed image 56, the initial marks are moved with the image as the camera 10 rotates or moves in order to keep them locked in the same place within the image as the camera 10 is panned, scanned or moved: p. 5, lines 21-24. The user can then see when he or she has properly aligned the subsequent photographic image with the previous photographic image, because the transparent or translucent image 56 and the live image closely line up: p. 8, lines 5-8.);

(7) taking the subsequent photograph (Figure 3b shows the image of the second photo to be taken: p. 8, lines 2-5.); and

(8) repeating steps (4) through (7) until all photographs making up the composite photograph are taken (The algorithm 13 running on the camera 10 continues giving directions for the user to take photographs in a zigzag fashion. This continues until the user indicates that he or she is done: p. 8, lines 25-31.).

Claim 21

A digital camera system (Figs. 1a and 1b show a digital camera 10: p. 4, lines 12-13) comprising:

a lens (Fig. 1b, #41: p. 4, line 24);

image sensing means for sensing an image viewed by the lens (Example means is image sensor 11: Fig. 1b, #11: p. 4, line 28);

display means for displaying the image sensed by the image sensor (Example means is display 32: Fig. 1a, #32: p. 4, line 21);

storage means for storing the image sensed by the image sensor (Example means is storage device 14: Fig. 1b, #14: p. 4, line 32); and

processing means coupled to the display, lens, image sensor, and storage device that embodies a processing algorithm that (Example means is processing circuitry 12: Fig. 1b, #12: p. 4, line 31-32):

provides a user interface for selecting if a composite photograph is to be taken and for identifying a location of a first photograph to be taken (Fig. 2 illustrates an exemplary user interface that is displayed on the display 32 for use in producing panoramas and composite photographs: p. 5, lines 3-4. The user may indicate that the result should be n photographs wide and m photographs tall, such as by entering the width and height on the display 32, using pull-down menus 53, 54: p. 5, lines 7-9.);

after the first photograph has been taken, overlays indicia on the display indicating an overlapping area within a second photograph that is to be taken (The algorithm 13 running on the camera 10 may overlay indicia 55, such as a grid 55, for example, indicating the location of the first photograph to be taken relative to the m x n final image: p. 5, lines 13-16. The algorithm 13 overlays marks 56, illustrated using dashed lines in Fig. 3a, on the displayed image where the ideal overlap would be for the next photographic image 62, i.e., to the right, shown in Fig. 3b: p. 5, lines 19-21.); and

uses video object tracking to track the overlaid indicia that indicate the overlapping area within the second photograph as the overlaid indicia moves over the image displayed on the display as the camera is moved to a position to take the second photograph, which overlaid indicia is used to align and place the second photograph relative to the first photograph (Using video object tracking technology, for example, on the low-resolution displayed image 56, the initial marks are moved with the image as the camera 10 rotates or moves in order to keep them locked in the same place within the image as the camera 10 is panned, scanned or moved: p. 5, lines 21-24. The user can then see when he or she has properly aligned the subsequent photographic image with the previous photographic image, because the transparent or translucent image 56 and the live image closely line up: p. 8, lines 5-8.).

**VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1-5, 9, 11-15 and 21 are rejected under 35 USC § 103(a) as being unpatentable over USPN 6,657,667 (Anderson) in view of USPN 5,557,358 (Mukai).

Claims 6-8 and 16-18 are rejected under 35 USC § 103(a) as being unpatentable over USPN 6,657,667 (Anderson) in view of USPN 5,557,358 (Mukai) and USPN 6,545,708 (Tamayama).

Claim 10 is rejected under 35 USC § 103(a) as being unpatentable over USPN 6,657,667 (Anderson) in view of USPN 5,557,358 (Mukai) and USPN 6,304,284 (Dunton).

Claims 19-20 are rejected under 35 USC § 103(a) as being unpatentable over USPN 6,657,667 (Anderson) in view of USPN 6,008,844 (Tsuda).

## **VII. ARGUMENT**

The rejection of claims 1 – 21 is improper, and Appellants respectfully request reversal of these rejections.

The claims do not stand or fall together. Instead, Appellants present separate arguments for various independent and dependent claims. Each of these arguments is separately argued below and presented with separate headings and sub-heading as required by 37 C.F.R. § 41.37(c)(1)(vii).

### **Claim Rejections: 35 USC § 103(a)**

Claims 1-5, 9, 11-15 and 21 are rejected under 35 USC § 103(a) as being unpatentable over USPN 6,657,667 (Anderson) in view of USPN 5,557,358 (Mukai). These rejections are traversed.

### **Principles of Law: Claim Construction**

During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification (see *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969); *In re Am. A cad. a/Sci.Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004)).

Although a patent applicant is entitled to be his or her own lexicographer of terms in a claim, in *ex parte* prosecution the lexicography must be within limits. *In re Carr*, 347 F.2d 578, 580 (CCPA 1965). The applicant must do so by placing such definitions in the specification with sufficient clarity to provide a person of ordinary skill in the art with clear and precise notice of the meaning that is to be construed. *See also In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (although an inventor is free to define the specific terms used to describe the invention, this must be done with reasonable clarity, deliberateness, and precision; where an inventor chooses to give terms uncommon meanings, the inventor must set out any uncommon definition in some manner within the patent disclosure so as to give one of ordinary skill in the art notice of the change).

Principles of Law: Obviousness

The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. § 103 is set forth in *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, 82 USPQ2d 1385 (2007):

Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. Quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966).

As set forth in MPEP 2143.03, to ascertain the differences between the prior art and the claims at issue, “[a]ll claim limitations must be considered” because “all words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385.

According to the Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in view of *KSR International Co. v. Teleflex Inc.*, Federal Register, Vol. 72, No. 195, 57526, 57529 (October 10, 2007), once the *Graham* factual inquiries are resolved, there must be a determination of whether the claimed invention would have been obvious to one of ordinary skill in the art based on any one of the following proper rationales:

(A) Combining prior art elements according to known methods to yield predictable results; (B) Simple substitution of one known element for another to obtain predictable results; (C) Use of known technique to improve similar devices (methods, or products) in the same way; (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable

results; (E) “Obvious to try”—choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; (F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, 82 USPQ2d 1385 (2007).

Furthermore, as set forth in *KSR International Co. v. Teleflex Inc.*, quoting from *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006), “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasonings with some rational underpinning to support the legal conclusion of obviousness.”

Therefore, if the above-identified criteria and rationales are not met, then the cited reference(s) fails to render obvious the claimed invention and, thus, the claimed invention is distinguishable over the cited reference(s).

#### Scope and Content of Art and Overview of Claims

As a precursor to the arguments, Appellants provide an overview of the claims and the primary references (Anderson and Mukai). This overview will assist in determining the scope and content of the prior art as required in *Graham* (see *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 setting out an objective analysis for applying 103 rejections).

As stated in Appellants’ background, when digital camera users take photographs that make up a panorama, they can have the most effective results if the photographs are taken with an optimal amount of overlap and reasonably good alignment to begin with. For panoramas, if the sequence of photographs is not aligned well along the horizon, the final panorama is limited in the vertical direction by the top of the lowest photograph of the series that is taken, and the bottom of the highest photograph that is taken.

One exemplary embodiment of the invention is directed to a camera that helps a user accurately align sequential photographs to create panoramas and composite photos, such as two or more separate photos that are overlaid to create a single, larger photo. In independent claim 1, after the first photo is taken, indicia are placed on the photo in the display to indicate an overlapping area for the location of the next photo. Video object tracking is then used to track the overlaid indicia **as the overlaid indicia moves over the image displayed** on the display as the camera is moved. The overlaid indicia indicate the overlapping area within the second photograph.

Anderson teaches a camera that overlaps multiple images and generates a composite picture. After a first image is captured, a portion of the first image is frozen onto the display. While this portion of the first image is still (i.e., not moving), the user aligns the next image with the still image.

Mukai teaches a camera that detects a moving object and uses this detection to calculate an optimum angle of view. Mukai detects moving objects for a reason that is not related to the recitations of the claims. Mukai detects object movement for determining a viewing angle for the user, not for indicating an overlapping area used to align and place a second photograph relative to a first photograph.

#### Differences Between the Art and Claims

Each of the independent claims recites one or more elements that are not taught or suggested in Anderson in view of Mukai. These missing elements show that the differences between the combined teachings in the art and the recitations in the claims are great. As such, the pending claims are not a predictable variation of the art to one of ordinary skill in the art.

These differences are shown below and presented with separate headings for different claim groups.

#### Sub-Heading: Independent Claims 1, 11, and 21

Independent claim 1 is selected for discussion.

As one example, independent claim 1 recites using video object tracking to track the overlaid indicia as the overlaid indicia moves over the image displayed on the display



as the camera is moved. The overlaid indicia indicate the overlapping area within the second photograph. The art does not teach or suggest these elements.

In Anderson, after the first image is captured, a portion of the first image is frozen onto the display. While this portion of the first image is still (i.e., not moving), the user aligns the next image with the still image. Anderson expressly teaches that the first image is still while the user aligns the next image to be captured:

Referring again to FIG. 7B, after displaying the live image in the live view zone in step 588, the user establishes horizontal and vertical alignment between the live image in the live view zone with the overlapping still images in the other zones in step 590 by altering the position of the camera. After aligning the live image with the still image in step 590, the user captures the image for the current pane in the composite image array in step 560 (FIG. 7A) and the process continues. (Emphasis added: See Anderson at column 9, lines 15-23).

After the user aligns the live view image with the still image in zone A and captures the image for image pane 3, image pane 4 becomes the current image pane. (Emphasis added: See Anderson at column 9, lines 34-36).

Figure 10B in Anderson shows how a portion of the first image (shown in Zone A as 440a) remains still as the second image (i.e., the image labeled “Live View”) is aligned with the first image. During this alignment process, the portion of the first image in Zone A does not move.

The teaching in Anderson is in direct contrast to claims 1, 11, and 21 that recite using video object tracking to track the overlaid indicia as the overlaid indicia moves over the image displayed on the display as the camera is moved. **Anderson would have no need for video object tracking since the first image remains still while the second image is aligned with the first image.**

Mukai teaches a camera that detects a moving object and uses this detection to calculate an optimum angle of view (see Mukai at column 8, lines 25-30). Mukai detects moving objects for a reason that is not related to the recitations of the claims. Mukai detects object movement for determining a viewing angle for the user, not for indicating an overlapping area used to align and place a second photograph relative to a first photograph.

Nowhere does Mukai teach or even suggest using video object tracking to track the overlaid indicia as the overlaid indicia moves over the image displayed on the display as the camera is moved. As recited in claims 1, 11, and 21, the overlaid indicia indicate the overlapping area within the second photograph. Instead, Mukai calculates an optimal viewing angle.

The combination of Anderson and Mukai teaches a camera that detects a moving object to calculate an optimum viewing angle of a first image. After the first image is captured, a portion of the first image is frozen onto the display. While this portion of the first image is frozen, the user aligns the next image with the still image. An optimal viewing angle would be determined for each photo.

This combination, however, would not teach or even suggest using video object tracking to track the overlaid indicia as the overlaid indicia moves over the image displayed on the display as the camera is moved. Furthermore, the claims recite that the overlaid indicia indicate the overlapping area within the second photograph.

The differences between the claims and the teachings in the art are great since the references fail to teach or suggest all of the claim elements. As such, the pending claims are not a predictable variation of the art to one of ordinary skill in the art.

For at least these reasons, independent claims 1, 11, and 21 and their respective dependent claims are allowable over Anderson in view of Mukai.

#### **Claim Rejections: 35 USC § 103(a)**

Claims 6-8 and 16-18 are rejected under 35 USC § 103(a) as being unpatentable over USPN 6,657,667 (Anderson) in view of USPN 5,557,358 (Mukai) and USPN 6,545,708 (Tamayama). These rejections are traversed.

As explained above, independent claims 1 and 11 recite elements not taught or suggested in Anderson in view of Mukai. Tamayama fails to cure these deficiencies. Thus for at least the reasons given with respect to independent claims 1 and 11, respective dependent claims 6-8 and 16-18 are allowable.

**Claim Rejections: 35 USC § 103(a)**

Claim 10 is rejected under 35 USC § 103(a) as being unpatentable over USPN 6,657,667 (Anderson) in view of USPN 5,557,358 (Mukai) and USPN 6,304,284 (Dunton). These rejections are traversed.

As explained above, independent claim 1 recites elements not taught or suggested in Anderson in view of Mukai. Shioji fails to cure these deficiencies. Thus for at least the reasons given with respect to independent claim 1, dependent claim 10 is allowable.

**Claim Rejections: 35 USC § 103(a)**

Claims 19-20 are rejected under 35 USC § 103(a) as being unpatentable over USPN 6,657,667 (Anderson) in view of USPN 6,008,844 (Tsuda). These rejections are traversed.

The claims recite one or more elements that are not taught or suggested in Anderson in view of Tsuda. These missing elements show that the differences between the combined teachings in the art and the recitations in the claims are great. As such, the pending claims are not a predictable variation of the art to one of ordinary skill in the art.

**Sub-Heading: Independent Claim 19**

As one example, independent claim 19 recites using video object tracking to track the transparent displayed image as the transparent displayed image moves across the display in a direction that is opposite to the direction of the subsequent photograph until the transparent displayed image overlaps a predetermined portion of the subsequent photograph that is to be taken. The art does not teach or suggest these elements.

In Anderson, after the first image is captured, a portion of the first image is frozen onto the display. While this portion of the first image is still (i.e., not moving), the user

aligns the next image with the still image. Anderson expressly teaches that the first image is still while the user aligns the next image to be captured:

Referring again to FIG. 7B, after displaying the live image in the live view zone in step 588, the user establishes horizontal and vertical alignment between the live image in the live view zone with the overlapping still images in the other zones in step 590 by altering the position of the camera. After aligning the live image with the still image in step 590, the user captures the image for the current pane in the composite image array in step 560 (FIG. 7A) and the process continues. (Emphasis added: See Anderson at column 9, lines 15-23).

After the user aligns the live view image with the still image in zone A and captures the image for image pane 3, image pane 4 becomes the current image pane. (Emphasis added: See Anderson at column 9, lines 34-36).

Figure 10B in Anderson shows how a portion of the first image (shown in Zone A as 440a) remains still as the second image (i.e., the image labeled "Live View") is aligned with the first image. During this alignment process, the portion of the first image in Zone A does not move.

The teaching in Anderson is in direct contrast to claim 19 that recites using video object tracking to track the transparent displayed image as the transparent displayed image moves across the display in a direction that is opposite to the direction of the subsequent photograph until the transparent displayed image overlaps a predetermined portion of the subsequent photograph that is to be taken. **Anderson would have no need for video object tracking since the first image remains still while the second image is aligned with the first image.**

Tsuda teaches determining a display position of a selection frame 111 based on movement of the camera. Nowhere does Tsuda teach or even suggest using video object tracking to track the transparent displayed image as the transparent displayed image

moves across the display in a direction that is opposite to the direction of the subsequent photograph until the transparent displayed image overlaps a predetermined portion of the subsequent photograph that is to be taken. **Tsuda is not tracking transparent displayed images.** Tsuda is tracking the selection frame. **Tsuda also is not concerned with moving a transparent displayed image to overlap a predetermined portion of a subsequent photograph.** Tsuda is not taking a subsequent photograph, but is tracking the selection frame.

The differences between the claims and the teachings in the art are great since the references fail to teach or suggest all of the claim elements. As such, the pending claims are not a predictable variation of the art to one of ordinary skill in the art.

For at least these reasons, claims 19-20 are allowable over Anderson in view of Tsuda.

### **CONCLUSION**

In view of the above, Appellants respectfully request the Board of Appeals to reverse the Examiner's rejection of all pending claims.

Any inquiry regarding this Amendment and Response should be directed to Philip S. Lyren at Telephone No. 832-236-5529. In addition, all correspondence should continue to be directed to the following address:

**Hewlett-Packard Company**  
Intellectual Property Administration  
P.O. Box 272400  
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Respectfully submitted,

/Philip S. Lyren #40,709/

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Ph: 832-236-5529

### **VIII. Claims Appendix**

1. A digital camera system comprising:

a lens;

an image sensor for sensing an image viewed by the lens;

a display for displaying the image sensed by the image sensor;

a storage device for storing the image sensed by the image sensor;

processing circuitry coupled to the display, lens, image sensor, and storage device; and

a processing algorithm that runs on the processing circuitry that:

provides a user interface for selecting if a composite photograph is to be taken and for identifying a location of a first photograph to be taken;

after the first photograph has been taken, overlays indicia on the display indicating an overlapping area within a second photograph that is to be taken; and

uses video object tracking to track the overlaid indicia that indicate the overlapping area within the second photograph as the overlaid indicia moves over the image displayed on the display as the camera is moved to a position to take the second photograph, which overlaid indicia is used to align and place the second photograph relative to the first photograph.

2. The system recited in Claim 1 wherein the algorithm displays a user interface on the display for indicating the size of the desired composite photograph.

3. The system recited in Claim 1 wherein the algorithm displays selection buttons on the display as part of the user interface to select if a composite photograph is to be taken.

4. The system recited in Claim 1 wherein the algorithm displays a menu for indicating the size of the desired composite photograph.

5. The system recited in Claim 1 wherein the indicia comprises a grid indicating the width and height of the desired composite photograph.

6. The system recited in Claim 1 wherein the indicia comprises a shadow copy of the first photograph.

7. The system recited in Claim 6 wherein the shadow copy comprises a transparent image.

8. The system recited in Claim 6 wherein the shadow copy comprises a translucent image.

9. The system recited in Claim 1 wherein the algorithm  
stores the location of photographs that are taken; and  
after the user selects a location of a subsequent photograph, displays indicia  
adjacent bordering images to guide the user's placement of the next photograph relative to  
the indicia on the display.



10. The system recited in Claim 1 wherein the algorithm guides the user to take photographs in a zigzag fashion.

11. A method for use with a digital camera having a lens, an image sensor for sensing an image viewed by the lens, a display for displaying the image sensed by the image sensor, a storage device for storing the image sensed by the image sensor, and processing circuitry coupled to the display, lens, image sensor, and storage device, the method comprising the steps of:

providing a user interface for selecting if a composite photograph is to be taken and for identifying a location of a first photograph to be taken;

after the first photograph has been taken, overlaying indicia on the display indicating an overlapping area within a second photograph that is to be taken; and

using video object tracking to track the overlaid indicia that indicate the overlapping area within the second photograph as the overlaid indicia moves over the image displayed on the display as the camera is moved to a position to take the second photograph, which overlaid indicia is used to align and place the second photograph relative to the first photograph.

12. The method recited in Claim 11 further comprising the step of:

displaying a user interface on the display for indicating the size of the desired composite photograph.

13. The method recited in Claim 11 further comprising the step of:

displaying selection buttons on the display as part of the user interface to select if a composite photograph is to be taken.

14. The method recited in Claim 11 wherein the further comprising the step of:

displaying a menu for indicating the size of the desired composite photograph.

15. The method recited in Claim 11 wherein the indicia comprises a grid indicating the width and height of the desired composite photograph.

16. The method recited in Claim 11 wherein the indicia comprises a shadow copy of the first photograph.

17. The method recited in Claim 16 wherein the shadow copy comprises a transparent image.

18. The method recited in Claim 16 wherein the shadow copy comprises a translucent image.

19. A method for use with a digital camera having a lens, an image sensor for sensing an image viewed by the lens, a display for displaying the image sensed by the image sensor, a storage device for storing the image sensed by the image sensor, a user interface, and

processing circuitry coupled to the display, lens, image sensor, user interface and storage device, the method comprising the steps of:

- (1) taking a photograph;
- (2) displaying the photograph on the display;
- (3) using a user interface to select that a composite photograph is to be taken;
- (4) using the user interface to indicate in which direction a subsequent photograph is to be taken;
- (5) making the displayed image transparent;
- (6) using video object tracking to track the transparent displayed image as the transparent displayed image moves across the display in a direction that is opposite to the direction of the subsequent photograph until the transparent displayed image overlaps a predetermined portion of the subsequent photograph that is to be taken, which overlap is used to align and place the subsequent photograph relative to the photograph;
- (7) taking the subsequent photograph; and
- (8) repeating steps (4) through (7) until all photographs making up the composite photograph are taken.

20. The method recited in Claim 19 further comprising the steps of:

- using the user interface to select that the composite photograph is complete; and
- returning the display to normal, nontransparent, operation.

21. A digital camera system comprising:

- a lens;

image sensing means for sensing an image viewed by the lens;

display means for displaying the image sensed by the image sensor;

storage means for storing the image sensed by the image sensor; and

processing means coupled to the display, lens, image sensor, and storage device

that embodies a processing algorithm that:

provides a user interface for selecting if a composite photograph is to be taken and

for identifying a location of a first photograph to be taken;

after the first photograph has been taken, overlays indicia on the display

indicating an overlapping area within a second photograph that is to be taken; and

uses video object tracking to track the overlaid indicia that indicate the overlapping area

within the second photograph as the overlaid indicia moves over the image displayed on

the display as the camera is moved to a position to take the second photograph, which

overlaid indicia is used to align and place the second photograph relative to the first

photograph.

**IX. EVIDENCE APPENDIX**

None.

**X. RELATED PROCEEDINGS APPENDIX**

None.